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Implementing Company Performance

Standards for Training and Incident Use

Richard Price

San Ramon Valley Fire Protection District, San Ramon, California

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed:	
C	Richard Price

Abstract

The inability of first responders to operate in a consistent, reliable and professional manner on an incident scene without adopted, written company performance standards was the research focus. Determining the organizational processes necessary to assure that high quality company performance standards are available for training and incident use was the primary purpose of the research. Descriptive research methodology was used. Research questions were (a) what company performance standards does the San Ramon Valley Fire Protection District need to operate safely and effectively at an incident scene (b) what method should be used to develop the detailed rider position specific components and checklists necessary for a comprehensive company performance standard to be consistently performed, and (c) what is the most appropriate final product format to present and utilize the developed standards. A questionnaire presented nationally was used to gather information on current company performance standards practices in U.S. fire agencies. A literature review identified the history and public value of company performance standards and their link to department training initiatives. The literature also exposed political and legal considerations of company performance standards and identified associated national standards. The research results made a case to recommend the development of a comprehensive company performance standards program to improve operational effectiveness, reduce firefighter injuries and fatalities, and increase training accountability.

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Implementing Company Performance Standards

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Introduction

The San Ramon Valley Fire Protection District (SRVFPD) lacks adopted, written company performance standards. This has resulted in an inability of first responders to operate in a consistent, reliable and professional manner on an incident scene. The purpose of this research is to identify the organizational processes necessary to assure that high quality company performance standards are available for training and incident use. The term company performance standards refers to pre-established, written, standardized evolutions that are performed by an entire fire company. Other agencies may use different terms for these adopted practices including fireground standard operating procedures or guidelines, general orders, and company operational evolutions, among others that may be equally appropriate.

Individual evolutions could be thought of as plays commonly run during an incident, and the compilation could be thought of as the district's official playbook. This playbook, or set of standards, is referred to as the company performance standards.

Optimally, each fire company would be proficient in these plays, or evolutions, and each crew member would be skilled in their role within each evolution. Each component play, or standard, is designed to show the preferred or best course of action for the given task and to help avoid missed steps or blind spots in complex evolutions. The standards also aim to assure operational consistency between all district personnel by defining precisely how an evolution is to be performed.

An effective program that reinforces the use of company performance standards could assist in reducing the loss of life and property, including the lives of firefighters by ensuring that all department members are properly trained to safely and effectively

perform essential tasks. Company performance standards clarify job requirements and expectations, enhance training opportunities, and provide for evaluation and accountability of operational performance (U.S. Fire Administration [USFA], 1999). The link to training is an important factor to consider. Training on company performance standards could begin in recruit academy and conceivably continue through a lengthy career. Routinely reviewing the application of company performance standards during actual firefighting operations could provide a window into training program effectiveness.

To begin this research it was imperative to determine how fire agencies across the country are utilizing company performance standards. Three research questions were used to guide this research. The research questions were (a) what company performance standards does the San Ramon Valley Fire Protection District need to operate safely and effectively at an incident scene (b) what method should be used to develop the detailed rider position specific components and checklists necessary for a comprehensive company performance standard to be consistently performed, and (c) what is the most appropriate final product format to present and utilize the developed standards. Aligned with the three research questions, the researcher used descriptive research methodology to analyze, synthesize, and present the findings.

Background and Significance

In early 2008 the SRVFPD had no adopted company performance standards in place for training or incident use. There were traditional ways of doing things that had been passed down through the years but very few were formalized in policy or lesson plans. The SRVFPD training division-led recruit academies taught

individual firefighting skills based on recognized standards such as International Fire Service Training Association (Wikipedia, 2008) and the California State Fire Marshal's curriculum, but were unable to teach company evolutions in a structured fashion. Since position-specific roles were for the most part undefined, recruit firefighters were taught the component parts of an evolution without specific direction regarding who would actually perform each required task. If instruction was provided for a vertical ventilation evolution for example, the firefighter would be taught that a ground ladder would need to placed, a chain saw and other tools would be required to be brought to the roof - but who would do these individual tasks, and in what order, would be determined on scene. More complex operations such as an aerial ladder rescue basket evolution or deploying a ground monitor with a foam drum would require significant orchestration during an emergency.

The lack of adopted, written company performance standards left the company officers with all the responsibility to assemble basic firefighting skills into coordinated actions. This commonly created inconsistencies between crews since there was no real right way to do things. Depending on which station you were working at on any particular day, and who the officer was at the time, execution and expectations on the fireground could vary considerably. Any recommendation to change an evolution, no matter how good an idea might be, was impossible to implement. With no documented practice in place to modify or debate, a change had no practical way of being implemented. This resulted in an occasional training bulletin or policy that addressed only the narrow topic being considered at the time and ultimately created a hodgepodge of operational direction.

For several years the SRVFPD command staff had lamented the lack of consistent operational standards. Although there had been several false starts over this period a renewed commitment had surfaced. If an effort was to be successful, roadblocks of the past would need to be identified and overcome. Initial concerns focused on process questions such as committee representation and the scope of operations to include. There were also serious questions on establishing time standards which would likely meet with resistance from the labor group and threaten the momentum that was building. With new media options such as video readily available even basic questions of delivery format dominated discussions. The command staff had several informal meetings on these topics and others including how many evolutions should be attempted in the initial effort and if the resulting standards should be rider position specific or more general defining only the tasks that needed completion – but not by who. It was decided that before moving forward more investigation would need to be done to understand what other agencies were doing and what was consider best practice in company performance standards today. That decision by the SRVFPD command staff led to this research.

The United States Fire Administration has operational objectives to reduce the loss of life from fire for those ages 14 and younger, those over the age of 65, and firefighters (U.S. Fire Administration [USFA], 2007). A properly developed and managed company performance standards program would likely improve the outcome of an incident and reduce the loss of life by assuring that firefighters arrive well trained on standardized evolutions and operate in a consistent and well coordinated fashion.

The Executive Analysis of Fire Service Operations in Emergency Management (EAFSOEM) curriculum teaches that the primary responsibility of an incident

commander is to ensure the safety of all personnel on an incident (U.S. Department of Homeland Security [DHS], 2007) which is also a fundamental objective of company performance standards. The EAFSOEM curriculum was also designed to prepare senior officers in the administrative functions necessary to manage the operational component of a fire department effectively (DHS, 2007). Company performance standards directly address this goal by providing fundamental accountability of operational performance and training effectiveness of essential tasks. This research provided an opportunity to understand how company performance standards could assist in reducing both civilian and first responder injury and death by improving training proficiency and operational effectiveness.

Literature Review

Standard operating procedures provide firefighters with time-tested, consistent, and safe methods of accomplishing routine tasks and help firefighters avoid mistakes that might occur if there were no prescribed methods for handling the operation at hand (Schmidt, 2007a). Schmidt states adherence to department operational procedures helps keep firefighters prepared and ready to act when an incident escalates in size or complexity. Standard operating procedures provide firefighters with a set of processes for dealing with incidents that quickly escalate in size or complexity and firefighters should embrace their use. Ezekoye and Weinschenk (2008) wrote that standard operating procedures are important for the effective utilization of resources to accomplish a given task. While the term standard operating procedure may have several different meanings, for the context of this research, standard operating procedures are considered a starting point for initial tactical functions. Standard operating procedures apply to training

exercises, regulation of on scene actions, and performance assessments. Although the critical application is on scene tactical directives so that every firefighter in the department knows what is expected of him or her and has the proper training to perform those tasks.

In 1974, fire departments in the California cities of Fountain Valley, Huntington Beach, Seal Beach and Westminster became a joint agency for training and communications (Knowles & Vincent, 1979). This combined effort was referred to as Net6. Municipal boundaries were dropped and the closest company was dispatched regardless of the incident location. The chiefs from these agencies used company performance standards to ensure consistent practices and to develop confidence in all crews. After several years Knowles and Vincent compared the evolution skills of the Net6 companies against those in comparable cities that had not instituted performance standards. They found that ninety-two percent of the Net6 companies met performance standards while only twenty-six percent of non-Net6 companies could pass the standard (p. 15).

According to Davis (1991) fire administrators began feeling more political and legal pressures in the area of accountability, specifically regarding training and safety with the introduction of National Fire Protection Association Standard 1500 (National Fire Protection Association [NFPA], 2006). The NFPA (2006) 1500 standard on fire department occupational safety and health program was developed to provide a consensus standard for an occupational safety and health program for the fire service. The intent of the standard was to provide the framework for a fire department or any type of organization providing similar services (International Association of Firefighters [IAFF],

2008). NFPA 1500 (2006) states "the fire department shall provide training, education, and professional development for all department members commensurate with the duties and functions that they are expected to perform" (p. 12). Davis (1991) feels company performance standards should adhere to nationally recognized standards such as NFPA (2006) 1500 to be legally sound. Two other National Fire Protection Association standards also directly relate to performance standards, NFPA (2007) 1001 and NFPA (2005) 1410. NFPA (2007) 1001 standard on firefighter professional qualifications has a requisite skill that firefighters are trained to operate at emergency scenes including knowledge of standard operating procedures. NFPA (2005) 1410 standard on training for initial emergency scene operations requires that company operations provide a mechanism to measure the performance of routine tasks that are required to support effective emergency scene operations.

An important factor of standard operating procedures is their link to training (Ezekoye & Weinschenk, 2008). The exercises which recruits and firefighters use for training and continuing education should be based on active standard operating procedures. The effectiveness and correctness of standard operating procedures and training can then be checked by monitoring firefighter performance in actual operations. Such monitoring and evaluation can serve as a review of current policy. Consistent review and refinement of the policies would be the ideal result of such a process.

According to Salka (2008) the best way to improve skills and perform correctly is to train. He recommends firefighters work on perfecting fireground skills with hands-on training. He states "the experiences you have at fires and other operations are also learning opportunities, but regularly scheduled training sessions will have the greatest

positive influence on your personal and department wide skills" (p. 182). Companies that train together frequently and realistically, based on established practices, will perform at high levels. Davis (1991) feels injuries and lawsuits are directly proportional to the quality of the training program. He states the following:

Quality controllers and risk managers have used training to improve safety and performance for many years. But often, it seems some fire chiefs fail to recognize the importance of training, particularly performance standards, which train personnel to a specific and standardized level. (p. 56)

According to Schmidt (2007a), demonstrated excellence in a training environment is no guarantee of excellence during a true emergency. However, firefighters who display excellence during training activities will likely demonstrate similar behavior during an actual emergency. Schmidt further emphasized that a critical factor for fireground success is the acceptance and use of standard operating procedures. Gustin (2007) argued that proficiency in stretching, advancing, and operating hose lines cannot be achieved by studying a book or by discussions in a classroom. Hose evolutions require skill and teamwork developed through frequent drills based on established methods. The number of firefighters needed and the roles those firefighters play in an evolution are best developed locally where specific challenges are known and understood. Gustin emphasized this by describing very specialized evolutions where firefighters in Florida used firefighting foam to control Africanized honey bees and offered another example where firefighters trained to rescue horses and other livestock that were submerged in mud. McDonald and Phelps (1984) stress the importance of creating and adjusting company performance standards to account for topography, weather conditions, and other local variables. They state "ensure that the performance standards for your department do, in fact, fit your real world operations" (p. 50).

Because fire department performance matters more now than ever, it logically follows that measuring performance also is more important than ever (Lawson, 2006). Measuring performance is an essential activity of any learning organization and is integral for analyzing operations as well as fostering discussions on improving performance in all aspects of service delivery. Lawson stressed that agencies should focus their efforts on performance and outcomes rather than process. He goes on to say that jurisdictions vary considerably in the ways and the extent to which they use performance data. He feels the primary reason should be to improve the effectiveness and efficiency of service delivery, making the community a safer place to live and work. Wainwright (2006) worries that managers have conflicting views on the value of operational competence. He feels a growing number choose to emphasize other areas of their responsibilities at the expense of operational readiness. He states that "we have lost focus on core competencies" (p. 18) and are choosing to devote less time to operational skills training. The old regime of repetitive drilling is being push aside by the demands of more responsibilities and specialized equipment. As less time is spent on the drill ground operational competence diminishes. As the desire to learn and change is commendable the question of "but at what cost" (p.18) must be asked. Schmidt (2007b) emphasized that the emergency scene is challenging and dangerous and that firefighters must be ready to perform safely and effectively when needed. To do that fire companies must conduct practical training on a regular basis. The emergency scene is not the place to learn or practice a skill as inadequately trained personnel can compromise the safety and

efficiency of operations. He reminds company officers to evaluate their firefighters' abilities to meet the basic skills requirements for their position and warns failure to do so may cause injury or death. NFPA (2005) 1410 on initial fire attack outlines procedures for performance measurements that include a time standard to measure proficiency. According to McDonald and Phelps (1984), "without a time standard, it's not possible to tell if a crew can meet a minimum efficiency standard" (p.50). Since time is a factor in fire loss it is an appropriate measure. Davis (1991) recommends developing performance times incorporating as many personnel as possible, averaging their times in a validating phase that is closely monitored. Ridgeway (1987) feels everyone with an interest in the standard should be involved in the development of the performance measurement and that it should reflect a product of discussion and collaboration, perhaps even compromise and negotiation. Buckman (2008) summarizes that the ultimate goal of a performance standard is to develop firefighters who understand and demonstrate operational competence now and in the future and that sound evaluations are grounded in clear and appropriate standards and criteria that are applied consistently and fairly.

In summary, the literature showed that company performance standards are critical for clearly spelling out what is expected and required of personnel during training activities and emergency response, especially for core competencies. National standards have increased training and safety expectations requiring fire departments to be more legally and politically accountable for their programs. A strong link between company performance standards and department training and safety initiatives was established as well as a need to consider a time standard as a proficiency measure. Having broad and collaborative organizational involvement in the establishment of the standards along with

awareness and recognition of local conditions will increase the chances of a successful implementation. The literature also indicated that agencies utilizing performance standards will likely perform safer and more effectively than those that have not instituted them.

Procedures

Participants

One questionnaire was conducted in support of this research effort. The questionnaire, called the *National Company Performance Questionnaire* (NCPSQ) (Appendix A), was sent to all subscribers of the *Daily Dispatch* service (http://www.dailydispatch.com). An advertisement promoting the questionnaire was purchased from the service. Subscribers to the Daily Dispatch (Western Fire Chiefs Association [WFCA], 2008) service receive a daily email newsletter that provides fire service related news highlights of the day. The service is sponsored by the International Association of Fire Chiefs (INFOCUS Marketing, 2008) and has a daily readership of approximately 22,000 fire service members (J. L. Heintz, personal communications, September 24, 2008). One hundred and fifty-one individuals voluntarily participated in the online questionnaire. All participants decided to click or ignore the link advertising the questionnaire. The link read San Ramon Conducting Survey on Company Performance Standards - Take their brief questionnaire! The questionnaire was available from September 24, 2008 through October 31, 2008, a period of 37 days. The daily newsletter contained the link each day during this period. To generate additional attention, on October 27, 2008 the text on the link was changed to San Ramon Valley FPD Conducting Survey on Company Performance Standards - Survey closes in just a

few days! The link was again changed for the same purpose on the morning of the final day to read San Ramon Valley FPD Conducting Survey on Company Performance

Standards - Last Day to Participate!!!! The final screen of the questionnaire thanked the respondent and encouraged them to forward a link to the questionnaire to others. The text of that sentence which included the associated link read if you know of other agencies utilizing Company Performance Standards please help to improve the quality of this research by sharing this questionnaire with a cut, paste and forward of the link below.

This potentially expanded the survey population beyond Daily Dispatch subscribers.

Screen shots of the Daily Dispatch newsletter showing the links and text described above appear in Appendix B.

Materials and Procedures

The NCPSQ was constructed using SurveyMonkey.com (Westin, 2005) using the provided *Create a New Survey* wizard tool. The questionnaire contained five multiple choice, single answer questions; two multiple choice, multiple answer questions; and one set of demographic questions, for a total of eight questions. Due to simple logic programmed in the questionnaire the maximum number of questions a single respondent could be presented was eight. The minimum number of questions a single respondent could be presented was one. The questionnaire logic simply prevented illogical question sequencing. For example, if the respondent selected *No* in response the question *Does your agency currently have adopted Company Performance Standards*, then they were not asked *Are any Company Performance Standards in your agency rider position specific*.

The questionnaire content was created by carefully analyzing the research questions and formulating questions to solicit pertinent and objective responses fundamental to the research problem and purpose. The first question of the NCPSQ asked for the Name, Agency, Address, City/Town, State, Zip/Postal Code, and Email address of the respondent. Seventy-four respondents provided complete responses to this question. This contact information allowed for follow up of a particular group of respondents if so desired. No such follow up contact was made for this research. A complete copy of the NCPSQ appears in Appendix A. The findings of the *National Company Performance Standards Questionnaire* (NCPSQ) are presented in the Results Section.

Limitations

A limitation of the research is that it is not known if, or how often, the link on the final screen of the *National Company Performance Standards Questionnaire* (NCPSQ) (Appendix A) was forwarded or utilized. This potentially creates sample bias if subscribers to the Daily Dispatch are not representative of the fire service as a whole. Also, since no restrictions were placed on the participant pool and all subscribers in all states were presented with same opportunity to click the ad links leading to the questionnaire an additional limitation is the assumption that company performance standards practices are not different for various sizes and types of agencies. The questionnaire targeted fire service members in all fifty states and in all size and types of agencies. The respondents that provided demographic information showed that at a minimum twenty-five states were included. Seventy-seven respondents did not indicating their state. The researcher believes this audience is appropriate however for the universally applicable research questions posed in this research.

Nothing technically prevented participants from answering the questionnaire more than once. The questionnaire was only available online. Participants were not provided any instruction beyond being provided a basic definition of company performance standards as applied to this research. Participants were allowed to move forward or backwards within the questionnaire and to change previous responses until they exited. Participants were not required to complete the questionnaire once underway and could exit at any point. Participants could not return and complete an incomplete questionnaire once they exited. Completed questions from incomplete questionnaires were included in the final results. No time restrictions were placed on the participants.

Results

The NCPSQ (Appendix A) was used to document and evaluate company performance standards practices in fire agencies across the country and to assist in responding to the research questions poised. The first NCPSQ question was demographic in nature and served to document the validity of the questionnaire distribution and allow for future contact with select respondents. A complete listing of respondents that provided demographic information in response to NCPSQ question one is included in Appendix C (email addresses have been excluded).

The results of NCPSQ question two found that over two-thirds of the respondents currently have adopted company performance standards in place (Table 1).

Table 1

Adopted Company Performance Standards

Response	Percent	Count
Yes	68.9%	104
No	31.1%	47
Total		151

The third NCPSQ question asked the respondents if any of their company performance standards were rider position specific. Although the SRVFPD command staff was united on the desire to create position specific evolutions, this question was asked to see how prevalent this practice was and to learn which agencies to reach out to for reference documents and experience using contact information collected in question one. These results are shown in Table 2.

Table 2

Rider Position Specific Company Performance Standards

Response	Percent	Count
Yes	61.8%	47
No	38.2%	29
Total		76

NCPSQ question three was only presented to respondents answering *Yes* to question two. Answering *No* to question two would end the survey as these respondents

did not have adopted company performance standards in place. Thirty-one percent of respondents answered *No* to question two.

The fourth NCPSQ question asked the respondents if company performance standards in their agencies had associated time standards. Knowing the percentage of agencies with time standards in place would be insightful and identifying these agencies could assist in future labor discussions. Of those respondents, two-thirds had time standards associated with their company performance standards, as shown in Table 3.

Table 3

Company Performance Standards Time Standard

Response	Percent	Count
Yes	66.7%	50
No	33.3%	25
Total		0

The fifth NCPSQ question asked the respondents how many company performance standards their agencies had. The most common response, selected by approximately a third of the respondents, was ten to nineteen standards. This was closely followed by one to nine standards, selected by an additional one third of the respondents. These responses are detailed in Table 4.

Table 4

Number of Company Performance Standards

Response	Percent	Count
1-9	33.3%	24
10-19	34.7%	25
20-29	16.7%	12
30+	15.3%	11
Answered Question #5		72

NCPSQ question six found a wide distribution of evolutions included in the company performance standards of the respondents, as detailed in Table 5.

Table 5

Included Company Performance Standards

Response	Percent	Count
Hydrant Supply Evolution	91.7%	66
Drafting Supply Evolution	27.8%	20
Handline Attack	91.7%	66
Handline Attack with Foam	33.3%	24
Wyed Lines	47.2%	34
Standpipe/High-Rise Attack	66.7%	48
Wildland Structure Protection	29.2%	21
Wildland Progressive Hose Lay	36.1%	26

Ground Monitor Attack	69.4%	50
Vertical Ventilation	58.3%	42
Positive Pressure Ventilation	41.7%	30
Aerial Ladder Elevated Master Stream	56.9%	41
Aerial Ladder Rescue Basket	29.2%	21
Traffic Collision	19.4%	14
Automobile Extrication	36.1%	26
Vehicle Fire	31.9%	23
Salvage (Company)	13.9%	10
Rapid Intervention Crew/Team	59.7%	43
Others (shown below)	18.1%	13

Additional hose lays

Tech ops (Trench, Confined Space, Ice)

Emergency decon; Raising and lower systems

Lower angle rescue, Water rescue

High-rise air supply

Roof operations

Aircraft rescue firefighting; EMS evolutions

Lines aloft

Floating pump; Portable pump

Large area search

Answered Question #6

72

NCPSQ question seven found that in most agencies an internal focus group or committee (34.2%) was the primary decision method for determining which evolutions or operations should be formalized into the company performance standards.

Table 6

Initial Determination to Formalize Evolutions

Response	Percent	Count
Decided by an individual (Training Chief, etc.)	28.8%	21
Decided by an internal focus group or committee	34.2%	25
Decided by an assigned project team	8.2%	6
Adopted or modified from an existing system	16.4%	12
Unknown	8.2%	6
Other	4.1%	3
Answered Question #7		73

NCPSQ question eight results, as shown in Table 7, show that at 68.5% a loose leaf ring binder is the most common format for delivering company performance standards for use. Approximately sixty percent answered electronic format. Video formats and stapled documents each were specified by nearly eighteen percent of respondents. Very few respondents indicated use of bound manuals or other methods.

Table 7

Presentation Form

Response	Percent	Count
Bound manual	4.1%	3
Ring binder, loose leaf	68.5%	50
Stapled document	17.8%	13
Electronic document (PDF, Website, etc.)	60.3%	44
Video (DVD, Website, etc.)	17.8%	13
Other (shown below)	4.1%	3
Microsoft PowerPoint		
Closed-Circuit TV (Fire Department Channel)		
Answered Question #8		73

Although the results showed that most agencies had between one and nineteen standards in place, the number an agency needs would be based on the actual assessed risks faced. The results also indicate that an appropriately led internal focus group or committee should be considered to develop the detailed rider specific components and checklists necessary for well designed standards. The results also show that a loose leaf ring binder format with an associated electronic version may be a good initial delivery method.

Discussion

The results of NCPSQ (Appendix A) question one, *does your agency currently* have adopted company performance standards (Table 1) are revealing. With 68.9% of

respondents indicating the affirmative it is clear that most agencies today recognize that standard operating procedures provide firefighters with safe and reliable methods of accomplishing routine tasks (Schmidt, 2007a). It is interesting that over 30% of the respondents still do not have such practices in place even with well documented examples of their benefits going back more than thirty years (Knowles & Vincent, 1979). It would be interesting to better understand how agencies without such standards train and operate. The implications for the SRVFPD are potentially far-reaching including inconsistent and potentially unsafe incident actions especially when coordinated activities are required.

Company performance standards contribute to the success of comprehensive fire department health and safety initiatives (Davis, 1991). National standards, such as NFPA 1500 (National Fire Protection Association [NFPA], 2006) outline the framework of these programs but do not develop specific task level roles. Nearly sixty-two percent of respondent answered *Yes* to NCPSQ question three, *are any company performance standards in your agency rider position specific* (Table 2) indicating that agencies are dividing broad industry standards into individual firefighter roles and responsibilities.

Lawson (2006) wrote that performance standards should be used to improve the effectiveness and efficiency of service delivery. As NCPSQ question four, *do the company performance standards in your agency have an associated time standard* (Table 3) shows, two-thirds of respondent agencies use time as a core measure of proficiency. McDonald and Phelps (1984) felt that since every minute was known to be potentially critical in determining the ultimate outcome of an event, time standards were essential in measuring crew efficiency. The SRVFPD command staff felt that the initial

implementation of the standards should not have time standards. It was believed that labor concerns would slow the process and put the entire the entire initiative at risk.

NCPSO question five, how many company performance standards does your agency have (Table 4) indicates that there is a wide range in the number of standards in use in fire agencies across the country. As Gustin (2007) wrote, different agencies provide different services and thus need unique, locally focus and developed standards. The SRVFPD command staff had identified twenty-two evolutions that they felt would be appropriate for initial implementation. They had no idea if this was representative of what other agencies were doing. McDonald and Phelps (1984) support this finding with their discussion of creating and modifying standards to account for local needs and variables. The wide distribution of responses to NCPSQ question six, which general categories shown are included in the company performance standards of your agency (Table 5) reinforces the fact that agencies likely pick and choose the standards they need to meet the needs of their distinct mission. The SRVFPD responds to a wide variety of emergency situations and thus will need an equally broad set of corresponding standards. Research question one sought to evaluate what evolutions the SRVFPD needed to operate safely and effectively at an incident scene.

Ridgeway (1987) felt that successful standards development required a collaborative, consensus built approach that included all stakeholders. NCPSQ question seven, how did your agency initially determine which evolutions or operations to formalize in the company performance standards (Table 6) found that most agencies did in fact take this focus group or committee approach. Wainwright (2006) expressed worry over operational priorities that might place core competencies at risk. A well represented

group tasked with the responsibility to meet all operation needs would appear to address this concern. As Schmidt (2007b) reinforced, the committee should focus on developing comprehensive standards that ensure firefighters are ready to perform safely and effectively when placed into action regardless of the incident. Research question two sought to evaluate what method should be used to develop the detailed rider specific components and checklists necessary for a comprehensive performance standard to be consistently performed.

Ezekoye and Weinschenk (2008) wrote that every firefighter should know what is expected of him or her. NCPSQ question eight, how are your company performance standards presented for use by your personnel (Table 7) indicates that most agencies provide both printed and electronic copies of their standards document. It appears from the research that the distribution of a printed document backed up with a readily assessable electronic version provides the needed assurance that this critical reference is always available for study and training use. Research question three sought to identify the most appropriate final product format to present and utilize the developed standards.

In summary, both the literature review and questionnaire responses point to the need for the SRVFPD to continue its committed effort to secure standardized policy level documents that provide consistent guidance to personnel performing common incident operations. The lack of such standards leaves the district vulnerable to inefficient and potential unsafe incident activity and significantly limits the potential of current and future training initiatives.

Recommendations

The San Ramon Valley Fire Protection District (SRVFPD) is strongly encouraged to continue in its effort to create a comprehensive set of company performance standards for training and incident use. In determining which evolutions to include it should review the NCPSQ questionnaire results shown in Table 5 and carefully analyze local conditions. Within the boundaries of the SRVFPD are expansive wildland areas, very large single family homes, multi-story residential and hotel complexes, a hospital, numerous convalescent/assisted living facilities, extensive equestrian, hiking and rock climbing areas, and a nuclear reactor (San Ramon Valley Fire Protection District, 2007). These occupancy and environmental factors create the need for well designed operational guidelines that account for unique local challenges. Table 5 showed the wide variety of standards that may be required for all risk agencies. It would also be interesting to better understand who is the individual referenced in Table 6 by the 28.8% of respondents selecting *Decided by an individual*.

Fully engaging the organization in the creation of the new standards will also be very important. A diverse group of management, line and labor representatives with significant training division involvement will lead to a well supported, consensus-built standard that can overcome a long term culture of significant operational independence. Although position specific checklists with time standards may be the ultimate program goal, a phased approached leaving time standards for the future may be more palatable to the organization and keep the project moving forward without controversy. Time standards could be introduced in a later phase of the project when the checklist-based standards are well known, exercised and fully understood. These checklists would be

comprehensive scripts of well engineered general routines that provide a step-by-step assignment of roles and responsibilities for both simple and complex evolutions. These routines should be standards based and the evolution documents should include appropriate policy references. These policies references could be from a variety of sources ranging from national standards to local department policy. Appendix D contains a sample company performance standard that includes such a policy reference page and could serve as a template for such a design. The district should also consider that most agencies deliver their standards utilizing ring binders with supporting electronic versions as shown in Table 7.

Good execution of company performance standards will require both soundly designed standards and well practiced routines. Regular and recurring training in the skills necessary to execute the evolutions properly cannot be overstated. The training division must fully understand its pivotal role in prioritizing company performance standards in its overall training program.

This research has focused primarily on basic skills for routine and familiar events where resources are known and adequate for the situation at hand. Future researchers should consider that some emergencies are not routine and the ability to improvise and innovate will ultimately determine the outcome. The skills required to mitigate such an emergency will likely not come from the rigid checklists described in this research. The concern of this researcher is that if training over mechanizes firefighting forces will they possess the skills necessary to think on their feet when there is no appropriate play in the book. The question of can we prepare crews to be precision drill teams while at the same time be creative problem solvers may be a topic for future research.

Reference List

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National Company Performance Standards Questionnaire

National Company Performance Standards Questionnaire

Purpose

As part of the National Fire Academy Executive Fire Officer Program (EFOP) I am currently conducting research on fire department Company Performance Standards (CPS). The brief questionnaire that follows will help to document and evaluate CPS practices from agencies across the country. If you have any questions or would simply like a copy of the results of this instrument, please contact me at rprice@srvfire.ca.gov. This questionnaire will close on October 31, 2008.

Richard Price
San Ramon Valley Fire Protection District (CA)

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National Company Performance Standards Questionnaire

Definition

For the purpose of this questionnaire, the term *Company Performance*Standards refers to pre-established, written, standardized evolutions that are
performed by an entire fire company (not an individual). Agencies may use
various terms for these adopted practices including fireground Standard
Operating Procedures (SOP), Proficiency Drills, and Company Operational
Evolutions (COE), among others.

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National Company Performance Standards Questionnaire (Cont.)

National Company Performance Standards Questionnaire

Contact/Agency Information

Please enter yo	ur contact information (optional).
Name (First	
Last)	
Agency Name	
Address	
Address 2	
City/Town	
State	select state
ZIP/Postal Code	
Email Address	
	Prev Next
lational Comp	any Performance Standards Questionnaire
Jse	
Does your agen Standards?	cy currently have adopted Company Performance
Ves	
J No	
	Prev Next

National Company Performance Standards Questionnaire (Cont.)

National Company Performance Standards Questionnaire

Company Performance Standards

sp	e any Company Performance Standards in your agency <i>rider position</i> ecific (i.e. unique tasks are specified for each seat position – Officer, river, Firefighter, etc.)?	
,	Yes	
,) No	
Do the Company Performance Standards in your agency have an associated time standard?		
,	Yes	
,) No	
How many Company Performance Standards does your agency have?		
,	1-9	
,	10-19	
,	20-29	
,	30+	

National Company Performance Standards Questionnaire (Cont.)

Which general categories shown below are included in the Company Performance Standards of your agency? Please check all that apply.

Hydrant Supply Evolution
Drafting Supply Evolution
Handline Attack
Handline Attack with Foam
Wyed Lines
Standpipe/High-Rise Attack
Wildland Structure Protection
Wildland Progressive Hose Lay
Ground Monitor Attack
Vertical Ventilation
Positive Pressure Ventilation
Aerial Ladder Elevated Master Stream
Aerial Ladder Rescue Basket
Traffic Collision
Automobile Extrication
Vehicle Fire
Salvage (Company)
Rapid Intervention Crew/Team
Others (please specify)

Appendix A

National Company Performance Standards Questionnaire (Cont.)

	v ald your agency initially determine which evolutions or operations to nalize in the Company Performance Standards?
J	Decided by an individual (Training Chief, etc.)
J	Decided by an internal focus group or committee
J	Decided by an assigned project team
etc	Adopted or modified from an existing system (IFSTA, NFPA, other agency, .)
J	Unknown
J	Other (please specify)
	v are your Company Performance Standards presented for use by your sonnel? Please check all that apply.
	Bound manual
	Ring binder, loose leaf
	Stapled document
	Electronic Document (PDF, Website, etc.)
	Video (DVD, Website, etc.)
	Other (please specify)
	Prev Next

Appendix A

National Company Performance Standards Questionnaire (Cont.)

National Company Performance Standards Questionnaire

Thank you!

I sincerely appreciate the time you have taken to complete this questionnaire. I hope that with your input today, combined with the input of others, the findings and subsequent report will help to reduce risk to our citizens and firefighters by helping first responders be more efficient and better prepared when they arrive on scene.

Over 10,000 research projects have been completed by EFOP students. If your agency needs information on a fire service topic chances are good that significant research has already been done. The <u>Learning Resource Center</u> (LRC) on the National Fire Academy campus in Maryland maintains one of the country's largest archives of fire service and public safety literature, including these applied research projects. If you would like additional information on the National Fire Academy Executive Fire Officer Program <u>click here</u>.

If you know of other agencies utilizing Company Performance Standards please help to improve the quality of this research by sharing this questionnaire with a cut, paste and forward of the link below.

httn:/	//www.survevmon	kev com/s asnyt	?sm=aKvPv1H9∩4	SioaaEwEkVe.	2fa 3d 3d
11000.7	/ W W W . SUI V E V I I I U I I	NEV.CUIII/S.asuni	: 3111-UN VENTOPOR	NOUGE WERVE	ZIM JU JU

Thank you,

Richard Price

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Done

Appendix B

Daily Dispatch Advertisement Text and Link Screen Capture

Daily Dispatch Announcement Page from September 24, 2008

Dispatch Date: Wednesday, September 24, 2008



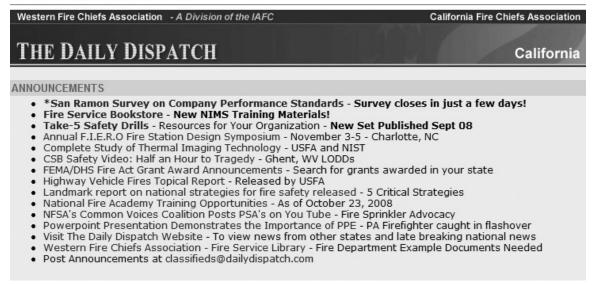
Clicking on the hyperlinked text *San Ramon Conducting Survey on Company*Performance Standards (the second announcement bullet) would take respondents directly to the survey. The California page is shown only as an example. All state pages appeared the same with only the State News section changing to reflect state-specific content.

Appendix B

Daily Dispatch Advertisement Text and Link Screen Capture (Cont.)

Daily Dispatch Announcement Page from October 27, 2008

Dispatch Date: Monday, October 27, 2008



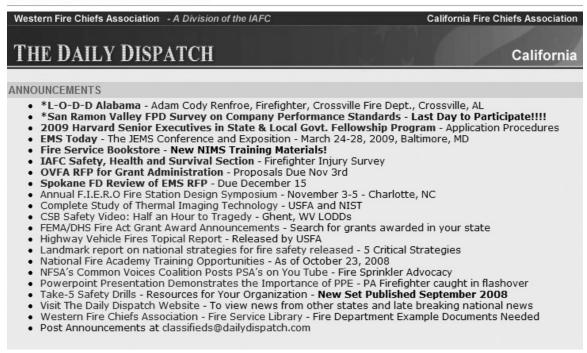
On October 27, 2008, the text of *The Daily Dispatch* advertisement link was updated as reflected in the screen capture.

Appendix B

Daily Dispatch Advertisement Text and Link Screen Capture (Cont.)

Daily Dispatch Announcement Page from October 31, 2008

Dispatch Date: Friday, October 31, 2008



On October 31, 2008, the text of *The Daily Dispatch* advertisement link was updated as reflected in the screen capture.

Questionnaire Demographics

Response

Vance Duncan, City of Erie, Bureau of Fire, 311 Marsh St, Erie PA, 16508-2731

Rick Griggs, Riverside County Fire Department, 16902 Bundy Av, Riverside CA, 92518

Selma Fire Department, 2861 A Street, Selma CA, 93662

Greg Keller, Salem Fire Department, 370 Trade St. SE, Salem OR, 97301

Brian Caminada, Newark Fire Department, 37101 Newark Blvd, Newark CA, 95030

Bryon Woodward, Mishawaka Fire Department, 600 South Union Street, Mishawaka IN, 46544

Carl Sparks, Branosn Fire & Rescue, 110 Crosby Street, Branson MO, 65616

Randy Baum, Dumfries-Triangle Rescue Squad, 3800 Graham Park Road, POB 460, Dumfries VA, 22026

Steven Adams, City of Healdsburg Fire Department, 601 Healdsburg Avenue, Healdsburg CA, 95448

Brian Harting, Bedford Fire Dept, 165 Center, Bedford OH, 44146

John Brazil, Harbor RFPD, P.O. Box 2001, 15694 Pedrioli Drive, Harbor OR, 97415

K.C. McCoy, Northwest Fire District, 5225 W. Massingale RD, Tucson AZ, 85743

Jack Hickey, City of Davis Fire, 530 Fifth St., Davis CA, 95616

Questionnaire Demographics (Cont.)

Response

Rick Barber, Brunswick Fire, 4383 Center Rd., Brunswick OH, 44212

Sam Parsons, Jerome Twp. Fire, 9689 U.S. Route 42, Plain City OH, 43080

Andrew Drapeau, Denver CO

Fred Bair, Tucson Fire Department, 265 S. Church Ave, Tucson AZ, 85701

Michael J. Ballmann, O'Fallon Fire Protection District, 119 East Elm Street, O'Fallon MO, 63366-2600

Jeff Fincke, Kendall County Fire, 1175 N Main, Boerne TX, 78006

Albert Bragg, Akron Fire Department, 146. S. High St., Akron OH, 44308

Joseph Muniz, Spencerport Fire District, 2588 South Union Street, Spencerport NY, 14559

Patrick Parker, Grand Traverse Metro FD, 897 Parsons Rd, Traverse City MI, 49686

Kendal E. Bortisser, San Miguel Fire District, 2850 Via Orange Way, Spring Valley CA, 91978

Raymond Spradlin, Santa Rosa Fire Department, 955 Sonoma Ave., Santa Rosa CA, 95404

Caldwell, Winston Dillard Fire District, PO Box 1779, 250 SE Main Street, Winston OR, 97496

Questionnaire Demographics (Cont.)

Response

Chris Clark, Streamwood Fire Department, 1095 E. Schaumburg Rd, Streamwood IL, 60137

Shane Thomas, Boring Fire Dist #59, 28655 SE Hwy 212, Boring OR, 97009

Dean Ellis, Idaho Falls Fire Department, P.O. Box 50220, 625 Shoup Ave., Idaho Falls ID, 83405

Bob Kielty, Central Lyon County Fire District, 231 Corral Dr., Dayton NV, 89403

Wilcox Daniel, Bay Mills Fire/Rescue, 14848 W. Lakeshore Dr., Brimley MI, 49715

Frank Hand, Township of Lower Merion Fire Dept, 109 Rockland Road, Havertown PA, 19083

L. Eastwood, Cicero Vol. Fire Department, North Main St., Cicero NY, 13039

Robert Pereira, Murpys F.P.D. (Retire), 1190 7th Ave. Spc. #32, Santa Cruz CA, 95062

Lonny Owens, City of Lenexa, Kansas Fire Department, 9620 Pflumm, Lenexa KS, 66215

Chris Pfeifer, Nampa Fire Dept, 1103 2nd St S, Nampa ID, 83651

Brent Sanger, Atkinson Volunteer Fire Department, Rt 3 Box 560, Hortense GA, 31543

Questionnaire Demographics (Cont.)

Response

Jonathan Smith, Clackamas Co. Fire District #1, 11300 SE Fuller Rd., Milwaukie OR, 97080

David Hodges, Maryville Fire Department, 402 W. Broadway, Maryville TN, 37801

Rene Gendreau, North Cumberland Fire Department, 50 Arnold Mills Road, Cumberland RI

Tim Leidig, Mundelein Fire Department, 1000 N Midlothian Road, Mundelein IL, 60060

Jimmy Grostick, McLane - Black Lake Fire Dept., 5911 Black Lake Blvd SW, Olympia WA, 98512

Mark Huckabey, Fullerton Fire Department, 312 E Commonwealth Ave, Fullerton CA, 92835

Steve Cavallero, Redwood City Fire, 755 Marshall St, Redwood City CA, 94063

Aaron McAlister, Dixon Fire, 205 Ford Way, Dixon CA, 95620

Micheal Despain, Fresno Fire Department, 911 H. Street, Fresno CA, 93721

Salvador Garcia, Oakland Fire Department

Chris Donovan, Monrovia Fire, 141 E. Lemon Ave, Monrovia CA, 92648

Robert Freitas, City of Vacaville, 2329 E St, Sacramento CA, 95816

Questionnaire Demographics (Cont.)

Response

Richard Mascarella, City of Monroe Fire Department, 3 South Main St, P.O. Box 117, Monroe OH, 45050

Todd Farley, Central Jackson County Fire Protection District, 805 NE Jefferson, Blue Springs MO, 64014

Barber, Brunswick Div. of Fire, 4383 Center Rd., Brunswick OH, 44212
Carl, Rock Springs Fire Department, 600 College Drive, Rock Springs WY, 82901
James Robinson, Moody Fire Department, 670 Park Avenue, Moody AL, 35004
Gary Riley, Huntington Beach Fire, 18301 Gothard, Huntington Beach CA, 92648
Chris Campbell, Boise City Fire Department, 5054 E Fescue St, Boise ID, 83716
Steven Trotter, Rodeo Hercules, 1680 Refugio Valley Road, Hercules CA, 94547
John Brazil, Harbor RFPD, P.O. Box 2001, Harbor OR, 97415
David Hawkins, Allen Township Fd, 16945 Allen Center Rd, Marysville OH, 43344
Rick Frawley, Milpitas FD, 777 S. Main St., Milpitas CA, 95035
Chris Whitmire, Marietta Fire Department, 112 Haynes Street, Marietta GA, 30127
Steve Wood, Brea Fire Department, 1 Civic Center Circle, Brea CA, 92821
Michael Ahlin, City of Petaluma FD, 198 D Street, Petaluma CA, 94952
Eric Aasen, Santa Cruz Fire Department, 230 Walnut Ave, Santa Cruz CA, 95060

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Appendix C

Questionnaire Demographics (Cont.)

Response
Garcie, CALFire, 40529 Calle Medusa, Temecula CA, 92591
Tim Kobes, Rapid City Fire Department, 10 Main Street, Rapid City SD, 57701
Wayne Howerton, Spokane Valley FD, 10319 E Sprague, Spokane Valley WA, 99206
Craig Aumack, North Stelton Vol Fire Co, 70 Haines Avenue, Piscataway NJ
Robert King, Kissimmee FD, 200 W. Dakin Ave, Kissimmee FL, 34741
David, Gosier, P.O. Box 104, 20292 County Route 181, LaFargeville NY, 13656
Dennis Wycoff, City of Folsom Fire Department, 535 Glenn Drive, Folsom CA, 95630
Ken Atkinson, LPFD, 3560 Nevada St., Pleasanton CA, 94566
Ken Burnside, Duvall/King County Fire Dist. 45, PO Box 338, Duvall WA, 98019
Bryan Collins, Moraga-Orinda Fire District, 33 Orinda Way, Orinda CA, 94563
Kevin Conant, San Jose Fire, 225 N. Market St., San Jose CA, 95110

Answered Question #1

Appendix D

Proposed Company Performance Standard Format

SOP	Structure Protection "Blitz and Run"	
Objective Cr	Crew will deploy 100'-200' of $1-\frac{1}{2}$ " hose and then load it onto rear mounted hooks.	n load it onto rear mounted hooks.
Given	Engine; three person crew in full Wildland PPE.	
Performance		
Additional Information		
	Position-specific Tasks	
Captain	Engineer	Firefighter
If first arriving unit, perform Initial IC Responsibilities Give order to crew Evaluate and discuss LCES Triage structure; determine suppression needs Direct Firefighter to deploy 1-½" single jacket line (100-200") to the side of the structure most at risk Assist Firefighter in fire attack Give the order to shut down Assist in loading hose onto hooks Assist in loading hose onto hooks Take position in cab; account for crew	Discuss LCES Back engine into safe location. Attempt to keep structure between the engine and the fire. Engage pump; engage foam unit if directed Exit cab wearing proper PPE with radio Chock wheel Attach line to rear discharge Charge line on order; set pump pressure; set pressure relief Mut down discharge on order Shut down discharge on order Disengage pump; prepare engine to move to next location	 □ Discuss LCES □ Exit engine upon order of Captain □ Assist Engineer with placement of engine □ Deploy line where directed □ Call for water □ Leave nozzle open after line is shut down □ Load hose onto hooks □ Take position in cab
San Ramon Valley Fire Protection District	ช	10/08

Appendix D

Proposed Company Performance Standard Format (Cont.)

10/08

Incident Response Pocket Guide; LCES Checklist (Pg. 6)

District Safety/Training Bulletin; Structure Protection in Wildland Urban Interface Fires

Protection Assignment"

Incident Response Pocket Guide; Wildland-Urban Watch Outs (Pg. 11)

Incident Response Pocket Guide; Structure Assessment Checklist (Pg. 14)

Fireline Handbook, March, 2004; Urban Interface (Pg. 135)

San Ramon Valley Fire Protection District

District Policy and Procedure; Uniform, Safety Clothing and Equipment, Section L "Vegetation Fire, Exterior Fire, and Structure

References